

Integrated Stereo Amplifier

Operating Instructions _____ **GB**

Mode d'emploi _____ **F**

Manual de instrucciones _____ **ES**

Manual de instruções _____ **P**

***TA-FA70ES
TA-FA50ES***

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.



Precautions

On safety

- Do not disassemble the cabinet as this may result in an electrical shock. Refer servicing to qualified personnel only.
- Should any solid object or liquid fall into the cabinet, unplug the amplifier and have it checked by qualified personnel before operating it any further.

On power sources

- Before operating the amplifier, check that the operating voltage of the amplifier is identical with your local power supply. The operating voltage is indicated on the nameplate at the rear of the amplifier.
- The amplifier is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the amplifier itself has been turned off.
- If you are not going to use the amplifier for a long time, be sure to disconnect the amplifier from the wall outlet. To disconnect the AC power cord (mains lead), grasp the plug itself; never pull the cord.
- AC power cord must be changed only at the qualified service shop.

On placement

- Place the amplifier in a location with adequate ventilation to prevent heat built-up and prolong the life of the amplifier.
- Do not place the amplifier near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
- Do not place anything on top of the cabinet that might block the ventilation holes and cause malfunctions.

On operation

Before connecting other components, be sure to turn off and unplug the amplifier.

On cleaning the amplifier

Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene.

On the prevention of howling

Do the following:

- lower the volume.
- keep the turntable as far from the speakers as possible.
- use commercially available audio insulators on the bottom of the turntable.
- keep the microphone away from the speakers during use.

For further protection against howling, set the speakers or turntable on top of a heavy wooden board or concrete slab.

If you have any questions or problems concerning your amplifier, please consult your nearest Sony dealer.

Welcome!

Thank you for purchasing the Sony Integrated Stereo Amplifier. Before operating the amplifier, please read this manual thoroughly and retain it for future reference.

About This Manual

The instructions in this manual are for models TA-FA70ES and TA-FA50ES. Check your model number by looking at the rear panel of your amplifier. In this manual, the TA-FA70ES is the model used for illustration purposes. Any difference in operation is clearly indicated in the text, for example, "TA-FA70ES only."

Type of differences

	Model	FA70ES	FA50ES
Feature			
AUX (BALANCED) connectors		•	
AUX INPUT switch		•	

Conventions

- Instructions in this manual describe the controls on the amplifier. For details on the remote buttons control, see "Remote Button Descriptions" on page 9.
- The following icon is used in this manual:



Indicates hints and tips for making the task easier.

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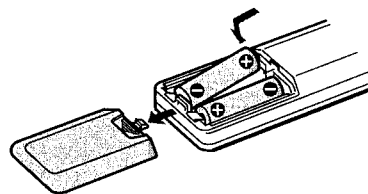
Unpacking

Check that you have received the following supplied items:

- Remote commander (remote) RM-S318(1)
- Sony batteries SUM-3(NS)(2)

Inserting batteries into the remote

Insert two size-AA (R6) batteries, matching the + and – on the batteries with the markings inside the battery compartment. When using the remote, point it at the remote control sensor  on the amplifier.



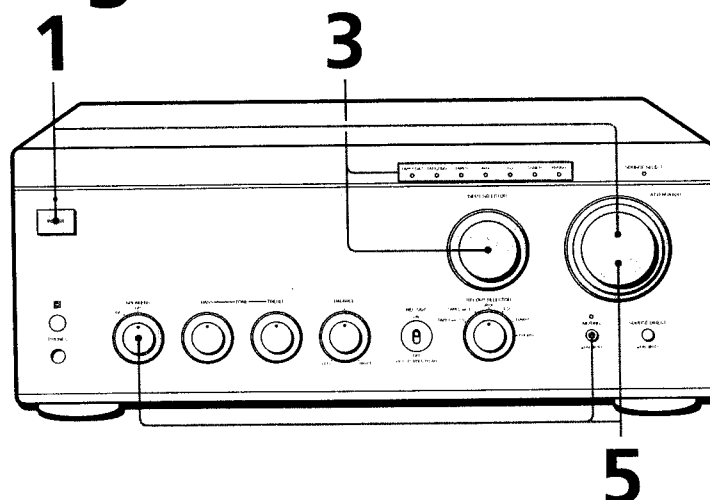
When to replace batteries

With normal use, the batteries should last for about 6 months. When the remote no longer operates the amplifier, replace all the batteries.

Notes

- Do not leave the remote near an extremely hot or humid place.
- Do not drop any foreign object into the remote casing, particularly when replacing the batteries.
- Do not expose the remote sensor to direct sunlight or lighting equipment. Doing so may cause a malfunction.
- If you don't use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

Listening to the Music



See pages 6 and 7 for hookup information.

To listen through the headphones
Connect the headphones to PHONES and set SPEAKERS to OFF.

To listen directly to the input signal
Press SOURCE DIRECT to ON. The SOURCE DIRECT indicator lights up. Since the TONE and BALANCE control circuits are bypassed, you cannot adjust bass, treble, or the balance while listening to a source directly.

For better sound quality
When you listen to programme sources connected to the PHONO, TUNER, CD or AUX jacks, set REC OUT to OFF to eliminate interference from the REC OUT circuit.

Note
Avoid high speaker output at which the sound is distorted. High-frequency distortion may damage the tweeters.

1 Press POWER to turn on the amplifier and turn ATTENUATOR fully counterclockwise to prevent damaging the speakers with excessive output. The POWER indicator changes from red to green.

2 Turn on the programme source you want to listen to.

3 Set INPUT SELECTOR to the respective programme source. The indicator for the programme source lights up.

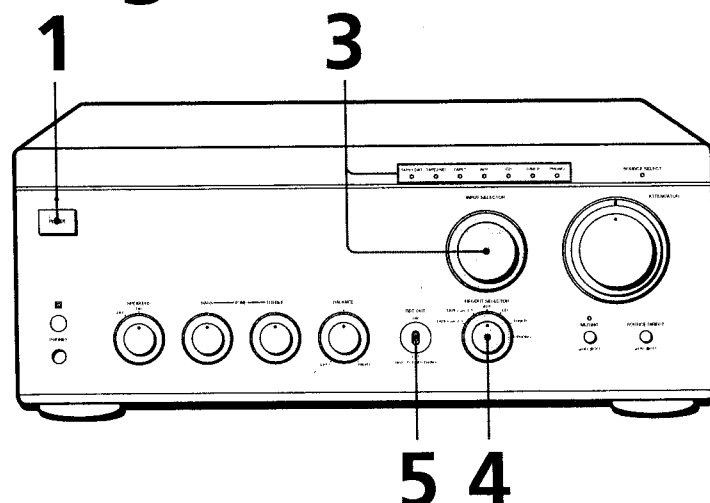
To listen to a	Turn INPUT SELECTOR for
Record	PHONO
Radio broadcast	TUNER
Compact disc	CD
Source connected to AUX	AUX
Source connected to:	
—TAPE3	TAPE3
—TAPE2/MD	TAPE2/MD
—TAPE1/DAT	TAPE1/DAT

4 Start the programme source.

5 Adjust the volume by turning ATTENUATOR. Make sure that MUTING is set to OFF and SPEAKERS is set to ON.

To	Press or turn
Switch the sound off	MUTING. Press again to switch sound on.
Adjust the bass	BASS
Adjust the treble	TREBLE
Adjust the balance	BALANCE

Recording



See pages 6 and 7 for hookup information.

You can record the same source on up to three recording components at the same time.

Recording is not possible, however, from the TAPE3 jacks to the TAPE1/DAT or TAPE2/MD jacks.

You can monitor the recorded sound by setting INPUT SELECTOR

But only if your tape deck has separate recording and playback heads. To monitor the sound being recorded from the TAPE1/DAT jacks, for example, set INPUT SELECTOR to TAPE1/DAT.

You can listen to one programme source while recording from another

This is because your amplifier outputs signals for recording and the speakers separately. For example, set INPUT SELECTOR to TUNER and REC OUT SELECTOR to CD.

- 1** Press POWER to turn on the amplifier. The POWER indicator changes from red to green.
- 2** Turn on the programme source you want to record.
- 3** Select the component that you want to listen to by turning INPUT SELECTOR.
- 4** Select the programme source that you want to record by turning REC OUT SELECTOR.

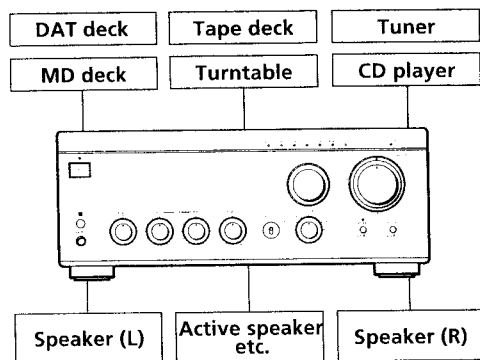
To record a	Set REC OUT SELECTOR to
Record	PHONO
Radio broadcast	TUNER
Compact disc	CD
Source connected to AUX	AUX
Source connected to:	
—TAPE2/MD	TAPE2 → 1/3
—TAPE1/DAT	TAPE1 → 2/3

- 5** Set REC OUT to ON.
When set to OFF, recording from a programme source is not possible, except from the TAPE2/MD IN jacks to the TAPE1/DAT or TAPE3 REC OUT jacks, or from the TAPE1/DAT IN jacks to the TAPE2/MD or TAPE3 REC OUT jacks.
- 6** Prepare the recording component for recording, then start recording.
- 7** Start playing the programme source.

Hookup Overview

The amplifier allows you to connect and control the following audio components. Follow the hookup procedure indicated for each component that you want to connect.

To learn the location and name of each jack, see "Rear Panel Descriptions" on page 9.



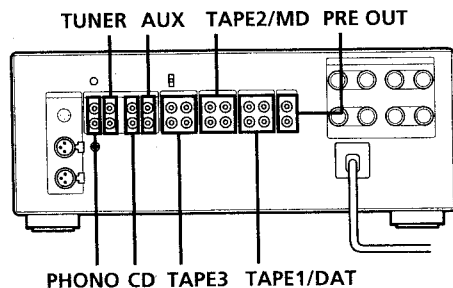
Before you get started

- Turn off the power to all components before making any connections.
- Do not connect the mains leads of the various components until all connections are completed.
- Use the audio connecting cords supplied with each component for hooking up with the amplifier. Purchase and use optionally available cords as required.
- Be sure to make connections firmly to prevent hum and noise.
- When connecting an audio connecting cord, be sure to match the R(right) and L(left) jacks of the amplifier to the R and L jacks on the other components.

Audio Component Hookups

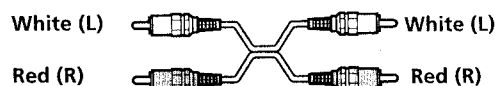
Overview

Here you learn how to connect your audio components to the amplifier.



What cords will I need?

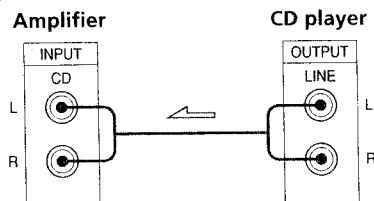
Audio connecting cords (not supplied) (1 for each component and turntable; 2 for each tape deck, DAT deck, or MD deck)



Hookups

The arrow indicates signal flow.

CD player

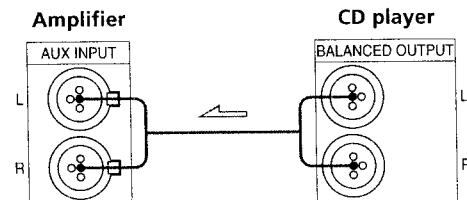
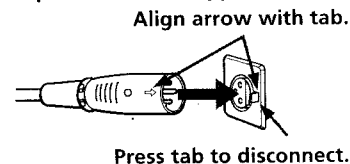


Connecting a CD player with balanced connectors (TA-FA70ES only)

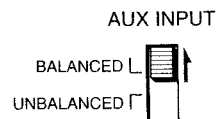
Use balanced cables to minimize interference from external noise.

Balanced cable (Canon XLR-3-32 or equivalent) (not supplied)

CONNECTION ASSIGNMENT



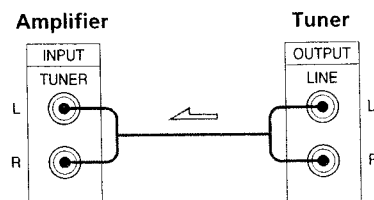
After connecting the balanced cables, set AUX INPUT to BALANCED.



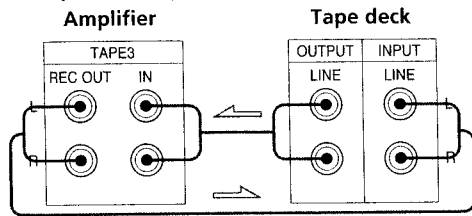
Note

Do not use both balanced and unbalanced output connectors at the same time. If you do, degradation or lack of sound output may occur.

Tuner



Tape deck, MD deck, or DAT deck



Use the above configuration to connect the OUTPUT and INPUT jacks of:

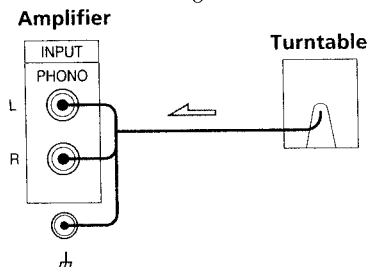
- a tape deck to the TAPE3 jacks.
- a tape deck or MD deck to the TAPE2/MD jacks.
- a tape deck or DAT deck to the TAPE1/DAT jacks.

Turntable

- 1 Remove the shorting plugs from the PHONO jacks before connecting the cables (but not unless you connect a turntable).

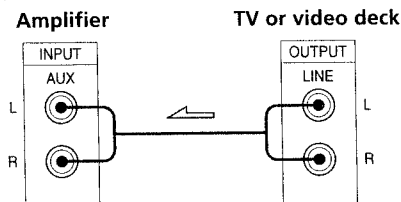
Do not attach the shorting plugs to any set of the REC OUT jacks. Doing so may stop output from the amplifier or cause the unit to malfunction.

- 2 Connect the audio connecting cords.

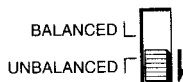


- 3 Press CARTRIDGE to select the cartridge type. Depress for MC and release for MM.

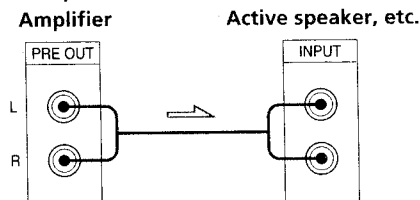
TV or video deck



Set AUX INPUT to UNBALANCED (TA-FA70ES only).
AUX INPUT



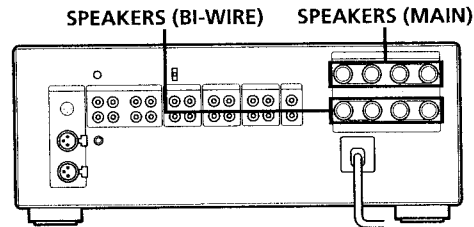
Active speaker, etc.



Speaker System Hookups

Overview

Here you learn how to connect speakers to the amplifier. You can connect two pairs of speakers, SPEAKERS MAIN and SPEAKERS BI-WIRE.



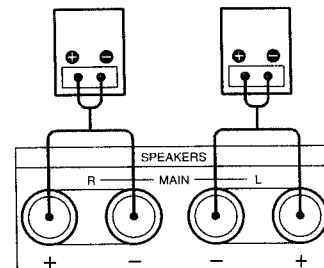
What cords will I need?

Speaker cord (not supplied)(1 for each speaker)



Twist the stripped ends of the cord about 2/3 inch (15mm). Be sure to match the speaker cord to the appropriate terminal on the components: + to + and - to -. If the cords are reversed, the sound will be distorted and will lack bass.

Hookups



Connecting to bi-wire system speakers

Since the two pairs of speaker terminals on your amplifier, SPEAKERS MAIN and SPEAKERS BI-WIRE, provide simultaneous speaker output, you can use them to connect a bi-wire speaker system.

Note

Use speakers with a nominal impedance of 4 to 16 ohms.

Mains Lead Hookups

Connect the mains leads from this amplifier and the various audio components to a wall outlet.

Note

Separate the mains lead, audio connecting cords and speaker cords. Noise or sound deterioration may occur when audio connecting cords are in contact with the mains lead, or when the mains lead or speaker cords are placed near the tuner's loop aerial or aerial wire.

Troubleshooting

If you've experience any of the following difficulties while using the amplifier, use this troubleshooting guide to help you remedy the problem. Should any problem persist, consult your nearest Sony dealer.

No sound output.

- Connect the audio connecting cords firmly.
- Connect the amplifier and other audio components correctly.
- Set SPEAKERS to ON (see pages 4 and 7).
- Turn INPUT SELECTOR to the appropriate programme source.
- Turn the muting function off by pressing MUTING (see page 4).

No audio from one channel or unbalanced speaker output.

- Turn BALANCE to adjust the balance.
- Check the speaker and input connections of silent channel.

Sudden loss of audio and the POWER indicator lights up red.

- The speaker cords have been shorted. Make sure they are connected correctly.

Weak bass or treble.

- Adjust the TONE controls.
- Press CARTRIDGE to select the appropriate cartridge type (see page 7).
- Change speaker positions or room conditions to eliminate obstructions in sound path.

Distorted sound.

- Improperly selected input signal.
- Insufficient input capacity of speakers. Lower the volume.

Lack of bass or ambiguity in instrument positions.

- Speaker cord and terminal polarity are reversed. Reconnect the cords with correct polarity.

Hum or noise.

- Ground the turntable system (see page 7).
- Connect the audio connecting cords firmly.
- The amplifier is picking up interference from a TV set. Move the amplifier away from the TV set or turn the TV set off.

Cannot record.

- Turn REC OUT SELECTOR to the appropriate programme source.
- Set REC OUT to ON (see page 5).

Remote control operations cannot be performed.

- Remove any obstructions between the remote control sensor on the amplifier and the remote.
- Point the remote towards the remote sensor on the front of the amplifier.
- The remote is too far from the amplifier. Move closer to the amplifier.
- Replace the batteries in the remote.

Specifications

System

- Power Amplifier: Pure-complementary SEPP MOS FET power amplifier with all stages directly coupled
- Preamplifier: Low-noise, high-gain equalizer amplifier
- Power section: Large-capacity power supply advanced STD

Rated output

- TA-FA70ES
- 4 ohms, 150 W + 150 W (DIN 0.7%)
- 8 ohms, 100 W + 100 W (DIN 0.7%)
- TA-FA50ES
- 4 ohms, 135 W + 135 W (DIN 0.7%)
- 8 ohms, 90 W + 90 W (DIN 0.7%)

Speakers impedance

- 4 to 16 ohms

Output bandwidth (8 ohms)

- 10 Hz to 100 kHz (at 40 W output, and high-frequency distortion rate of 0.08%)

Dynamic headroom

- at 4 ohms: TA-FA70ES 2 dB
- TA-FA50ES 3 dB
- at 8 ohms: TA-FA70ES 1.2 dB
- TA-FA50ES 2 dB

Total harmonic distortion

- 0.005% (at 8 ohms, 10 W output)

Damping factor

- 100 (8 ohms, 1 kHz)

Intermodulation (IM) distortion (60 Hz: 7 kHz=4:1)

- 0.005% (8 ohms)

Throughrate

- 125 V / μ sec, 250 V / μ sec (Inside)

Residual noise

- Less than 115 μ V (network A)

Equalizer deviation

- PHONO MM: 20 Hz to 20 kHz, ± 0.2 dB

Frequency response

- TUNER, CD, AUX, TAPE 1, 2, 3: 2 Hz to 100 kHz ± 0.5 dB

S/N

- PHONO MC: TA-FA70ES 78dB (A Fil, 0.5 mV) TA-FA50ES 76 dB (A Fil, 0.5 mV)
- MM: 87 dB (A Fil, 5 mV)
- TUNER, CD, AUX, TAPE1, 2, 3: 105 dB

Inputs

Input sensitivity and impedance

- PHONO MC: 0.25 mV, 100 ohms
- MM: 2.5 mV, 50 kilohms
- TUNER, CD, AUX, TAPE 1, 2, 3: 150 mV, 30 kilohms

Maximum input capability (1 kHz)

- PHONO MC: 9 mV
- MM: 150 mV

Outputs

Output level / impedance

- REC OUT 1, 2, 3: 150 mV, 1 kilohms
- PHONES: 10 mW (at 8 ohms)

Tone controls

- BASS (100Hz): ± 7 dB
- TREBLE (10kHz): ± 6 dB

General

Power requirements

- 230 V AC, 50/60 Hz

Power consumption

- TA-FA70ES: 330 W
- TA-FA50ES: 300 W

Dimensions (approx.) (w/h/d)

- 430 $\times$ 175 $\times$ 450 mm
- (17 $\times$ 7 $\times$ 17 $\frac{3}{4}$ inches)
- incl. projecting parts and controls

Mass (approx.)

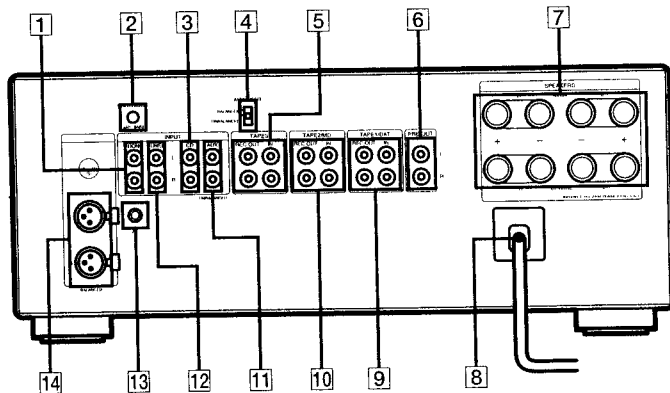
- TA-FA70ES: 22,2 kg (48 lb 8 oz)
- TA-FA50ES: 20,2 kg (44 lb 1 oz)

Supplied accessories

- Remote commander (remote)
- RM-S318 (1)
- Sony batteries SUM-3(NS) (2)

Design and specifications are subject to change without notice.

Rear Panel Descriptions



- 1 PHONO
- 2 CARTRIDGE MC/MM
- 3 CD
- 4 AUX INPUT (TA-FA70ES only)
- 5 TAPE3
- 6 PRE OUT
- 7 SPEAKERS MAIN/BI-WIRE
- 8 Mains lead
- 9 TAPE1/DAT
- 10 TAPE2/MD
- 11 AUX(UNBALANCED)
- 12 TUNER
- 13 $\varnothing$ (earth)
- 14 AUX(BALANCED)
(TA-FA70ES only)

Remote Button Descriptions

You can use the supplied remote to control other Sony audio components equipped with the  (remote control sensor) mark.

Remote Button(s)	For operating the	Function
INPUT SELECTOR		
CD	Amplifier	Selects input signal from the CD jacks.
TUNER	Amplifier	Selects input signal from the TUNER jacks.
PHONO	Amplifier	Selects input signal from the PHONO jacks.
TAPE1/DAT	Amplifier	Selects input signal from the TAPE1/DAT jacks.
TAPE2/MD	Amplifier	Selects input signal from the TAPE2/MD jacks.
AUX	Amplifier	Selects input signal from the AUX jacks.
ATT +/-	Amplifier	Controls the ATTENUATOR.
TUNER		
PRESET +/-	Tuner	Scans and selects preset stations.
CD		
	CD player	Starts playback.
	CD player	Pauses playback.
	CD player	Stops playback.
	CD player	Locates tracks (AMS*).
D.SKIP	CD player	Skips a disc (for CD player equipped with a multi-disc changer).

Remote Button(s)	For operating the	Function
MD		
	MD deck	Starts playback.
	MD deck	Pauses playback.
	MD deck	Stops playback.
	MD deck	Locates tracks.
TAPE DECK A/B		
	Deck A or B	Starts playback.
	Deck A or B	Stops all tape operations.
	Deck A or B	Fast-forwards or rewinds the tape.

*Automatic Music Sensor